

INTELLIGENT STORAGE DEVICE CONTROLLER

ABSTRACT OF THE DISCLOSURE

5 A programmable streaming data processor that can be programmed to recognize
record and field structures of data received from a streaming data source such as a mass
storage device. Being programmed with, for example, field information, the unit can
locate record and field boundaries and employ logical arithmetic methods to compare
fields with one another or with values otherwise supplied by general purpose processors
10 to precisely determine which records are worth transferring to memory of the more
general purpose distributed processors. The remaining records arrive and are discarded
by the streaming data processor or are tagged with status bits to indicate to the more
general purpose processor that they are to be ignored. In a preferred embodiment, the
streaming data processor may analyze and discard records for several reasons. The first
15 reason may be an analysis of contents of the field. Other reasons for record blocking
may have to do with tagging records that are to be visible to particular users depending
upon a series of concurrent transactions.